

WORMS IN DOGS.

BY ARNOLD BURGESS.

Truly has "Stonehenge" said "Worms are a fertile source of disease in dogs, destroying every year more puppies than distemper itself; and in spite of every precaution appearing in the kennelled hound or shooting dog, as well as the pampered house pet, and the half starved cur." Judging by the number of inquiries for remedies which we get, our friends kennels are no exceptions to the general rule. These same queries also prove that the symptoms indicating the presence of these pests, and the various medicines which should be used, are alike unknown to the general public. We cannot therefore, do better than give a brief description and list of common remedies; not that we are unwilling to aid our friends in individual cases, but rather that a possibly fatal delay may be avoided. Since, however prompt we may be, time is necessary for our replies to reach our correspondents.

In the first place all worms are propagated by ova; but some are also capable of bringing forth their young alive. So that in order, to absolutely relieve the dog, not only must all existing worms be removed, but the eggs in which future parasites are latent must also be destroyed. Three varieties of worms inhabit the intestines and are capable of removal; they are the maw, round, and tape worms. There is also a kidney worm and one found in the brain, both of which are ultimately fatal. The maw worm similar to the thread worm in man, is about an inch long, of a milk white color, with one blunt end, where the mouth is situated, and the other pointed. The worm is seldom troublesome, and if so is easily expelled by doses of areca nut, followed by castor oil twelve hours after giving the nut. In fact, this treatment is the best of all for all kinds of worms, but as the nut is sometimes hard to find at the drug stores, a good remedy for both maw and round worms is finely pulverized glass, as much as will make into a bolus the size of a hickory nut, when mixed with butter or lard, to be followed six hours after by castor oil. This remedy is perfectly safe if the glass is finely pulverized. Another remedy is four grains of santonine with twenty grains of jalap, mixed into a bolus, and give on an empty stomach, in fact as all vermifuges should be.

The round worm is of a pale flesh color, five or six inches long and is generally found in knots of three to half a dozen at a time. These worms frequently generate their eggs in their own bodies, and the microscope will disclose the parent full of its young. They stand next to the tape worm in the trouble they give, but generally yield readily to the remedies we have named.

The tape worm is frequently several feet in length, flat in form, with a small head having four mouths. The peculiarity of this worm is that every section of its body possesses the faculty of reproducing its species. The ova thrown out at every joint are almost infinite in number, and these readily communicate the pest to other dogs, especially in kennels where the most scrupulous neatness is not enforced. Naturally the tape worm proves most injurious to the health of the dog in its habits. It absorbs a great portion of the nourishment taken into the stomach, thereby preventing its sustaining the system; and beyond this it irritates the intestines in a serious manner. It defies the action of the ordinary vermifuges, but yields to areca nut generally, and in cases where it does not, the best remedy is a bolus composed of twenty drops of the oil of male fern, fifteen grains of jalap and enough liquorice powder and water to mix the whole. Indian pink, calomel and spirits of turpentine are all mentioned by "Stonehenge" as powerful and effective expellants, but with the caution that all act sometimes prejudicially or fatally, and that they should not be given without a full knowledge of the risk, or by a competent practitioner.

The symptoms which denote the presence of worms are marked in character and not easily mistaken by a careful observer. They are the same in all cases without regard to the kind of worm producing them, except that they differ in identity according to the degree of internal irritation, and hence as all or a party only, appear, the kind of worm may be determined by the exhibition. An unhealthy condition of the coat, the hair being devoid of gloss, dull and staring, is the first symptom; then follows in due order a ravenous appetite, with, in spite of the quantity eaten, a falling off in flesh; but, dry nose; dull spirits and offensive breath. The faeces are generally small and disconnected. Sometimes dry and crumbling, again lumpy, and followed by frothy mucus.

The full list of symptoms seldom appears

cauter, but he hung so much that the English colt on the opposite side of the course got up in the last stride and made a dead heat of it. In the deciding race the English three year-old was made favorite, though meeting Bay Final at a disadvantage of 19 lbs., compared with the weight for age scale, under which at this season of the year, a four-year-old should allow a three-year-old 18 lbs., but, tiring under his impost after a second time completing the long two mile course, he was cleverly beaten by the American by half a length. According to this running, it may be inferred that, as Broad-side was about ninth or tenth in the Cesarewitch, Rosebery, who gave him nearly a stone in weight and a 2st. beating beside, is from 8st. to 4st. better than Bay Final, of the same age. Springfield, too, won the free handicap for three-year-olds over the one and a quarter miles Across the Flat, hard held, from Gavarni and two other opponents though his staying powers were doubted, owing to his never having run a mile previously. He is certainly a magnificent horse to look at, being full of quality and of good size without being big and lumbering.

HOW LINCOLN DECIDED A BET.

Mr. Lincoln was very positive in his mortal positions, and exerted a great influence on the young men about him. Especially was he severe on gambling. Greene, his best friend, had got into that practice. So Lincoln one day gave him a very severe talk on his habit. There was one person who always won from Greene, and it was done by some trick in the game they played. Greene said he must beat him before he stopped. Said Lincoln—"Billy, if you will promise that you will never gamble again, I'll put up a job that will beat him." And Greene said, "If you will only help me to get ahead of him, I swear it." "Well," says Lincoln, "when he comes into the store again, you bet him one of those \$7 hats that I can drink out of a full whiskey barrel." Greene suggested that would be a pretty big thing to do. They had better try it first. So they rolled out a full barrel and Lincoln lifted himself up to one knee, and then the other end on the other knee, and thus balancing the barrel of whiskey, drank out of the bung-hole. In a few days the "professional" came around. Greene struck the bet without any trouble. The man increased it to a hat apiece. Lincoln was called in and lifted the barrel and drank out of it, and Greene took the hat. It was rather a Chinese way for Mr. Lincoln, but Greene has sacredly kept his promise.

THE SALMON BREEDING ESTABLISHMENT ON THE NORTH-WEST MIRAMICHI.

A large quantity of salmon ova has been successfully laid down at the Dominion Government hatching establishment on the Northwest Miramichi River. Last year the reception and feeding dams were both injured, and after they were examined by Inspector Venning, the work of making the repairs was entrusted to Mr. Elson Tozer who, under the Inspector's personal direction, has made a satisfactory job, both dams being now staunch and tight and full of water.

On the 1st of September Overseer Hogan was instructed to employ men and obtain a lot of parent fish, but owing to the low water prevailing prior to the autumn rains, the fish were prevented from ascending the river, and efforts to procure them were, therefore, unsuccessful. At the first freshet the river rose four feet in twenty-four hours, and as the water submerged the shore the dried leaves and parched debris deposited by the spring freshet floated down against the nets, which were thus converted into dams and swept away from their positions on the bar below the Big Hole.

The sweeping net was next resorted to, and for all possible exertions were made, by night and day, 141 fish were obtained—76 males and 65 females. The preponderance of male fish in the whole take of the season was a discouraging feature in the operations and, added to it, was the capture of 20 spent fish which, of course, were immediately liberated. An encouraging and significant feature of the operations, however, was the fact that the fish taken this season are larger than those previously taken, two of them weighing about forty pounds each.

At the present time, the season for obtaining ova having closed, there are now laid down in the hatching house from 600,000 to 700,000 healthy eggs which have been successfully impregnated and are in prime con-

dition of his own species in his stomach. The bass is omnipresent, but the brook trout is found in only two or three small streams that empty into Lake Ontario, and again on the Ottawa side of the watershed. Of perch, sunfish, and dace or shiners, there are any quantity they are, however, unworthy of notice except for baiting night lines. For the derivation of the word mascaillonge we must travel back to some what early times, when the canoes of French voyageurs rocked upon the waters of the St. Lawrence, and when the representatives of the Louis held high court at Montreal. In these early days of the old regime, when the war whoop of the savages still sounded where now short-horn cattle graze the mascaillonge—the fish of the long snout—must indeed have been welcome in the frying-pans of the hardy pioneers of France.

The whole art of trolling lies in the paddling, as the spoon, of course, feels every dip of your blade. A good deal also hinges on local knowledge, or rather an acquired eye for likely spots, as in trout fishing, which soon comes natural. A good roe fisherman, however, would be surprised, looking at the clumsy tackle, and drawing his deductions regarding the intelligence of the fish therefrom, how often, even when he learnt to paddle, he would go out before success attended his endeavors. Where wind and tide beat heavily against outstanding promontories, fish carefully. Where lake steals off in narrow windings between bare rock walls, troll diligently. Neglect not the snug bays to your right and left, where water-lily beds heave gently above the slight wash of your canoe. Round grassy islands, with every kind of verdure throwing dark shadows over you as you glide along, round rocky islets, destitute of all signs of life, and strewn with the wreckage of winter floods; through silent narrows, between weird arrays of drowned trees, skeletons of dead forests that stretch their eads and bleached arms on every side. Beware of smoken snags, steer cautiously round each fallen tree, remember your bait is forty yards from you, or you may be disagreeably reminded of the last visit to your dentist's, or, worse still, lose your spoon. Every vibration of the bait is distinctly felt in your teeth, and you can tell with great precision how it is spinning; the dull monotonous hum as it revolves on the brass bar being—especially if you smoked an extra pipe over the camp fire the night before—undoubtedly conducive to nodding in the absence of sport.

Down goes the paddle, and, as our fingers grasp the line, a magnificent fish of at least 10 lbs. leap three feet into the air, his scales fairly shining in the sun. Another leap or two, and we breathe freely, as he makes the running at a great pace for the open lake, towing canoe and all after him; for with such tackle, we can afford to be severe. Our line is no silken thread, and ceremony would be out of place, though such a fish is worthy of a better fate. We are very soon on even terms with him, and, after two or three futile attempts to dive under the canoe, our fingers are in his eyes, and with considerable trouble we deposit a twelve-pounder in the bottom of the craft, and giving the coup de grace (which, in such narrow quarters, is absolutely necessary), survey his lordly dimensions with mingled feelings of satisfaction and admiration, for he is more than twice the weight of average specimens of his kind—the head of the pike family. He differs little in appearance from the last-named fish, being a trifle more silvery, and perhaps rather more underhung, but in edible qualities it would be an insult to mention him in the same breath. The most voracious of his tribe, it is said that the very perch and sunfish are not safe from his savage fangs. The only pity is, it is next to impossible to roe-fish for him. An acquaintance of mine, who lived most of his time on the frontier of the lake country, was the only person I ever saw use a rod for their capture. For this purpose he had to be paddled by a second party, so, though the satisfaction of playing the rod belonged to him, the merit of the capture belonged in reality to the paddler, as the rod was only laid in the canoe whilst trolling.

By the time the hooks are extricated from our fish's jaws, the canoe has drifted sideways through the narrow opening of the channel, into a new and larger lake, level-coasted as the other, but islandless. Far away on the opposite coast, a thin line of smoke rising from the wood denotes the shanty wherein an ex-British officer has for the last twenty years expatriated himself, and devoted himself to the paddle and rifle exclusively; and, I may add, a better companion found a camp fire would be hard to find. Turning homewards, we point the bow of our canoe toward what appears in the distance to be stretches of green meadow, but is in reality beds of wild rice, haunts of ducks and reed birds, and along whose edges we hope to pick up a fish. Nor is our hopes delusive, for we have scarce coasted them for one hundred yards ere the unmistakable sensation that causes the paddle hastily to be rejected and the line seized makes itself manifest, and an average fish of 6 lbs. strains on the line. But, alas, fickle fortune! one more fatal spring, and the line falls slack in our hand. The tears, metaphorically speaking, shed for this loss are hardly dry, and scarce a quarter of a mile has been put between us, and the spot where we caught the last glimpse of the tip of his tail, when our course is once again secured somewhat consoles us. Scarce five minutes elapse before we are fast in another fish; but a certain drag on the line shows us,

with the thermometer at 100 deg. in the snail's foot, and yet, when a man lives collarless and coatless, and sleeps with lakes rippling at his feet, comparisons would scarcely be fair. Our way homelies by back channels; so narrow and winding that we have at times even to pull the canoes over logs that have fallen across our path. Entwining boughs meet over our heads. The wash from our tracks laps on either side, not on banks—for banks there are none—but upon the frunks of fallen trees that lie heaped on every side as generation after generation falls upon the chaos of the last, struck by lightning, killed by forest fire, or rotted by spring floods. The hoarse cry of the kingfisher, so called, startles us, and the heron flaps lazily up from reedy hollows; here and there a flock of wood duck, scarce expecting intrusion, dart off through the trees, leaving the ripples on the water only to mark their presence. Such is a great portion of the forest primæval, of which schoolboys have dreamed, and poets sang from time immemorial, wandering over green awards, beneath umbrageous oaks, reclining by the banks of purring streams. So runs the strain of the ova and the thoughts of the other. "Oh, rudo shock! Has no one felt it? Stretch out your hand, would be Arcadian; you can scarcely see the tips of your fingers for brush. Venture, oh! scornful one, into those dark shades between May and August, all the pennyroyal that was ever bottled went save you. Try it between October and May, you may keep alive if you secure a good air-proof lumber shanty, and pile the blazing logs half way to the ceiling. From thence you can watch the snow-flakes fall and falling till the fall measure is meted out, after which you can, with some difficulty, perhaps dig yourself out. Then comes the still forest, and the patter patter of small avalanches on the frozen surface sounds on every side; the two mouse now rays, but not you, O bush-whacker! the ducks have fled far southward, and are falling in scores before the raking discharges of Chesapeake gunners, basking in the sunny waters of the extreme south, while the squirrel knows a good deal too much to be abroad in such hard times. The well-known sound of the rapids even is hushed, and, where they boiled, but a short time since the waves may be seen at twilight crossing in single file, while their dismal howls make more melancholy the long nights.

August, September, and October are the only three really open months in every sense of the word, and the sportsman or lover of nature who thinks it worth while to penetrate those latitudes during those months will find plenty to keep busy both his eyes and his gun, then he may wander, happy as a king and free as the air whither he will till the close of autumn comes.—*Amos, in London Field.*

THE GAME LAWS OF ENGLAND.

A remarkable "game case," involving a question of some importance, was tried at a Justice of Peace Court at Falkirk recently. Two miners, named McDonald and Sinclair, were accused of trespassing, in pursuit of game, on lands the property of Mr. Forbes, of Callendar. From the evidence, it appeared that the miners were walking along a public road, and had two dogs with them, which entered an adjoining field, and, after coursing it, hunted a rabbit into a stone dike, built between the road and the field. McDonald left the road, got upon the top of the dike, and watched the escape of the rabbit, while Sinclair stood on the roadside close to the dike, from which he removed some of the stoors, and then secured the animal. It was contended for the prosecution that McDonald, having left the road and gone upon the top of the fence, had committed a trespass by inserting his hand within the fence; it was left to the court to say. On behalf of the miners it was urged that they were not guilty of trespassing or being upon lands in pursuit of game as set forth in the complaint, as it was there must be actual personal entrance to the lands before a contravention of the statute was committed. The court took this view of the matter and acquitted the accused who thus remain masters of the situation and of the rabbit.

A JUDGE WHO LANDED HIS FISH UNDER DIFFICULTIES.

In the bay, just below Cape Vincent, Judge Emerson and his wife, of Ironton, Mo., were out in a very small boat trolling. With two hundred to three hundred feet of line out and wound around his hand, and while on his feet adjusting a seat, a terrible surge on his line threw him off his balance and into the St. Lawrence. He held fast with only one foot inside the little boat, with head and arms stretched out at full length to the water toward the fish. The boat being very light, the struggles of the fish made the situation perilous, and several boats instantly pushed out to assist, but by the aid of his wife, who is something of a sailor, and the Judge's aquatic qualities, he managed to get the boat. Meantime the fish, which

NEWFOUNDLAND COD.

NOW THE FISH ARE CURED AND SHIPPED. A recent letter from Ed. Jean, N. F., to the Montreal Gazette says: "We are now busy shipping our dried codfish for foreign markets. It is curious to note the history of a codfish from the moment when, on the look of the fisherman, it is dragged from the native element into disappears down the human throat on the banks of the Amazon, the Amazon, the Tagus, or the Po. After a few spring wriggles and it is a comfort to be informed by naturalists that fish are almost insensible to pain—the cod is flung from the fisherman's boat upon the stage, where it is received by the cut-throat, who, with a sharp knife lays open the fish across the throat and down the belly, and passes it to the header. This operator proceeds to extract the liver, which is dropped into a vessel by his side, to be converted into cod-liver oil. He then extracts the entrails and wrenches off the head, and throws these into another receptacle, to be preserved for the farmer, to mix with bog and earth, thus forming a most fertilizing compost for his fields. The tongues, however, are taken out and also the 'sounds,' and these, fresh or pickled, are an excellent article of food. The fish is then passed to the 'splitter,' who by a dexterous movement cuts out the back-bone nearly to the tail, and thus lays the fish entirely open, and capable of being laid flat on its back. This is the nicest part of the operation, and the 'splitter' always commands higher wages than the other operators. The 'salter' takes the fish and washes it well from all particles of blood, salts it, and places it in piles to drain. After lying the proper length of time it is washed and spread to dry on the 'flake,' which is formed of spruce boughs supported by a frame-work, resting on upright poles. Here the cod are spread out individually to bleach by exposure to sun and air, and during this process require constant attention. At night, or on the approach of rain, they are made up into little round heaps, with the skin outward, in which state they look very much like small haystacks. When the bloom, or whitish appearance, which for a time they assume, comes out on the dried fish, the process is finished, and they are then quite ready for storing. On being conveyed to the premises of the exporting merchant, they are first 'cured,' or assorted, into four different kinds, known as Merchantable, Madeira, West India, and Dun, or broken fish. The first is the best quality, the second a grade lower; the third is intended for the stomach of negroes, and the fourth, which is incapable of keeping, is used at home. The cod sent to hot countries is packed by screw power into small cases called drums; that which goes to the Mediterranean is usually exported in bulk. We ship large quantities of dried codfish to Brazil, and there is hardly an inhabited corner of that vast empire where the Newfoundland cod is not to be found, being carried on the backs of mules from the sea coast into the most distant provinces of the interior. The negroes of the West Indies welcome it as a grateful addition to their vegetable diet. To all parts of the Mediterranean it finds its way—Italians, Greeks, and Sicilians equally relishing the produce of our sea harvest. The Spaniards and Portuguese are our best customers, and all over the sunny peninsula, the baccho have been passing down since the days of Cervaantes, who makes special mention of our cod in Don Quixote under that name. In Great Britain and the United States we have thousands of customers. In the warmer regions of the earth, however, the people seem to have a special liking for the dried and salted cod, and to them it is an almost indispensable article of food. The more extensively Brazil, Spain, and Italy are opened up by railways and other means of transit, the greater becomes the demand for cod, as the cost is lessened. Roman Catholic countries are our best customers, and Newfoundlanders have no reason to wish for the abolition of Lent or a reduction in the number of fast days appointed by the Roman Catholic church. The advancing prices of fresh meats of all kinds in various countries is also rapidly increasing the demand for cod, and has considerably enhanced its value. Twelve or fourteen years ago the average price of fish was from twelve to fifteen shillings per quintal. It is now exactly double that price.

DEATH IN A GAMING HOUSE.

A curious story comes from Paris. It is not very long since a young man, well dressed, and apparently rich, entered a gaming house. He was playing roulette at a table, and had already won a little money. "Red wins," pronounced